Performance and Emission Characteristic of Compression Ignition Engine Using Blend of Diesel and Canola Oil

M.F.Fariz1 , C.K.Ihsan1 , M.M.Noor1* , K.Kadirgama1 , D.Ramasamy1 , M.M. Rahman1 , A.T.Hoang2 Maziatun Mohamad Mazlan1 Nur Aqilah Othman2 and Hamzah Ahmad3

1 Automotive Engineering Research Group (AERG),Faculty of Mechanical Engineering, University Malaysia Pahang (UMP), Pekan, Pahang, Malaysia
2 Faculty of Mechanical Engineering, Ho Chi Minh city University of Transport, Binh Thanh District, Ho Chi Minh city, Vietnam
*muhamad@ump.edu.my / kumaran@ump.edu.my

Abstract

This study presents an investigation of engine running on diesel in order to determine the engine operating characteristic and exhaust emissions levels when using diesel and canola oil. The blend of canola and diesel consist of 5%, 10% and 15%. The engine coupled to dynamometer with 0% load condition for the test. The same method will be repeated for each fuel blend by keeping the same condition. The present studies contribute as an alternative fuel by using biofuel from nonedible for diesel engines with standard engine parts.

Keywords: Biofuel; canola oil; emissions